

ABSTRACT

An aircraft servicing pit that defines a subsurface chamber below a surface across which aircraft travel when not airborne is formed of a prefabricated pit body atop which a pit lid is mounted for rotation. Within the enclosure of the pit beneath the surface across which the aircraft travel a counterweight system is connected by gears to pit lid supporting arms. The pit lid supporting arms have proximal ends rigidly joined to pit lid gears, which are meshed with counterweight gears rigidly joined to counterweight arms supporting counterweights within the enclosure of the pit. The pit lid and counterweight arms move in counterrotation when the pit lid is opened and closed, with the gravitational force acting upon the counterweights acting in opposition to the force of gravity upon the pit lid. By locating the lid hinge axis of rotation beneath the rim of the frame in which the pit lid is seated when closed, it is possible to provide the pit lid with a resilient gasket extending about its entire peripheral edge. Consequently, an aircraft servicing pit is provided which has a counterbalanced pit lid that may be sealed watertight within a surrounding frame.